

1 can find the file, e.g., a complete file extension name, a
2 beginning memory location, or the like.

3 In cases of a computer controlling a plurality of displays
4 (or monitors) plurality of sets of files, each set for a
5 respective display or monitor, is present in computer storage.
6 The scenario file sets up timing and coordination of sequences
7 for the playing of the individual file.

8 The timing may be of several types in accord with the
9 present invention with the goal being to coordinate the displays
10 of multiple computers whereby if time lag or delay occurs in one
11 computer, the collective presentation process nonetheless
12 corrects itself and remains on schedule. In one example, the
13 time may be a relative time whereby the associated display time
14 refers to the amount of time that an associated image/sound will
15 remain displayed/played on the selected graphics screen before
16 the next image/sound is activated. In another example, the time
17 may be an absolute time, e.g., 9:00:00.000 A.M to 9:00:00.1,
18 whereby the display is for one-tenth of a second that starts and
19 ends at designated times. In another example, the time may be a
20 collective time whereby each graphics/sound file is activated
21 based on the end time of another file for a selected delay with
22 respect to an absolute time. Sound and image files may be

1 played simultaneously, when desired, i.e., the start and/or end
2 times may be coincident.

3 Thus, in computer step 16, the computer program reads the
4 scenario file 18 specified in step 14, and constructs a list of
5 image graphic files/sound files and appropriate absolute,
6 relative, or delay times. In step 20, the user has the option
7 to specify a loop count that allows the complete list of files
8 in the scenario file to be activated a desired number of times.
9 The default is one and in effect, the presentation will be
10 presented once if the default is used, twice if the count is set
11 to two, and so forth.

12 At computer step 22, a start time is specified whereby
13 the user specifies the exact time to play the first image/sound
14 file. At step 22, the computer may then calculate the exact
15 time to display succeeding images, such as for instance, by
16 adding the delays associated with each image. If absolute times
17 are utilized, then the timing is already available in the
18 scenario file. The delay times and starting times may be used
19 to calculate absolute times, if desired. Thus, the timing can
20 be effected in different ways with the goal being to coordinate
21 the overall presentation with, effectively a common clock, based
22 on the accurate time clock in each computer.

1 At step 24, program 10 runs the scenario when the start
2 time occurs. In one embodiment, after step 22, program 10 may
3 first blank the screen, display the time the first file will be
4 played, loads the first graphics and/or sound file to play into
5 computer memory as indicated at 26 and waits until the start
6 time, specified in step 20, arrives. In this way, each computer
7 screen can be fetched into computer memory prior to the
8 beginning the presentation to enhance smooth and timely
9 transitions. At the appropriate start time, step 28 initiates
10 operation of the sequence of images to be displayed.

11 In a preferred embodiment of the invention, image/sound
12 files 29 are, in a preferred embodiment, stored on the same
13 computer which will be displaying the images. This eliminates
14 the need to transfer graphic files over a network. Typically
15 such transfers occur at much slower speeds than occur within the
16 busses of the computer and so tens of thousands of images can be
17 displayed without delays caused by network transfers of files.

18 Thus, at step 22 computer program 10 has preferably
19 initialized each computer in which computer program is loaded
20 and each computer waits until a respective start time which may
21 be a simultaneous start time, if desired. When the start time
22 arrives as indicated at step 28, then the respective computer
23 plays, displays, and/or sounds the beginning or initial file(s)